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PR 10/20/2009	PR 10/20/2009	DGC 10/20/2009	DGC 10/20/2009

Revision no.

Work Instruction Procedure

WIP 4.4.61.3 Sanitary Sewer Stoppage/Overflow Response Procedure

This is a printed copy of the original and will not be kept up-to-date.

Persons responsible: Reeser, Paul

Areas of application: City of Williamsburg Public Utilities

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1.0 Purpose

- 1.1 The purpose of this procedure is to establish practices that will assist in the reduction and or elimination of Sanitary Sewer Overflows (SSO's). It also gives guidelines that shall standardize response tactics. It is realized that not all situations are the same, and a review of this procedure should take place at a minimum of annually.

2.0 Scope

- 2.1 This procedure is for the City of Williamsburg Department of Public Works and Utilities. It is the duty of all Department of Public Works and Utilities personnel to be familiar with this procedure. The primary division directly responsible for carrying out this procedure is the Water and Sewer Division. Every effort shall be made to minimize the impact of SSO's, while maximizing the protection of public health, safety and the environment

3.0 Responsibilities

- 3.1 First contact or call recipient:
- 3.1.1 The person receiving the call from complainant shall take reasonable steps to determine if response is necessary. Information and questions in the process of this procedure are intended to aid in this matter.
- 3.2 Respondent:
- 3.2.1 Person dispatched to the scene will attempt to make contact within 15 minutes to complainant giving an estimated time of arrival.
- 3.2.2 They will also follow the process within this procedure with the understanding not all situations are the same, common sense and practical experience are necessary.
- 3.3 Utilities Superintendent:
- 3.3.1 Must ensure all personnel are properly trained and understand this procedure.
- 3.3.2 They will do or assign any follow up work needed to achieve the intended purpose, (documenting, reporting, diagnosing, and scheduling further repairs if needed.
- 3.3.3 Periodically review this procedure with the appropriate personnel to ensure effectiveness.

4.0 Definitions

- 4.1 Release/Overflow: Any release from the collection system, including clean-outs, manholes, gravity mains, force mains, pump stations etc.
- 4.2 Controlled release: Is spillage that can be contained and does not enter state waters or pose a threat to the public health and safety. In the case of a controlled release, the field personnel will use whatever means necessary to clean the spillage. The release need not be reported to the DEQ.
- 4.3 Reportable release: Is any release of unrecovered wastewater that may reasonably be expected to reach state waters, and/or adversely impact the public health and safety
- 4.4 State waters: include waterways, rivers, canals, creeks, lakes, ponds, and tributaries. Reportable releases will be reported to DEQ as soon as possible, but in all cases within 24 hours by telephone, facsimile, or e-mail and confirmed in writing within 5 days. Reports will be filed with the managers of affected storm water drainage systems in accordance with local procedures.

5.0 Process

- 5.1 Person receiving the call from complainant shall get all applicable information, (name, address, address where problem is occurring if different, phone number where complainant

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can be reached)

- 5.1.1 During regular business hours dispatch respondent by means of radio or cellular phone. If this call occurs after normal business hours use the on call phone number to dispatch respondent. Dispatcher will note time and name of respondent, for the purpose of filing work order.
- 5.2 Respondent will follow the basic outline contained within the process of this procedure. The steps include, contact, diagnose, eliminate, contain, disinfect, and assess. The overall goal is to reduce or eliminate the impact of SSO's on the environment.
 - 5.2.1 Contact: Call complainant within first 15 minutes after being dispatched, give them your estimated time of arrival. Basic question should be asked to determine if response is necessary. Is this property residence or business? Are all fixtures on property affected? Are you currently at location? Have you tried using a plunger on affected fixture? If yes is the answer to some response is necessary.
 - 5.2.2 Ask them a few specific questions: example (Do you know of a clean out on the property? Is water coming out of manhole/clean-out or in the yard or street? Are they aware of anyone else being affected?). Additional information needed, ask if a plumber has been involved. If so get plumber information contact name and number this can be useful if respondent needs specific information.
 - 5.2.3 Upon arrival notify complainant if possible. Also inform them in some cases when the flusher or vactor is used, water or air can be pushed back into there plumbing system causing pipes to rattle or cause spillage. Closing toilet lids and even covering sinks drains may be advisable.
 - 5.2.4 Diagnose: Determine the cause of the overflow or stoppage. Check the upstream and downstream manholes to determine if there is a main line stoppage. If mainline appears to be clear check affected property for a clean-out at City right of way (R.O.W.). Newer home typically have clean-outs within 10-20 feet of meter box, and should have cast iron casting covering them. A metal detector may be needed to locate clean-out. Older home may have clean-out within 5-10 feet of house some may not have one. If after a reasonable attempt to locate clean-out none can be found, and there is no overflow or release just a stoppage affecting the property, it is the responsibility of the property owner to have stoppage cleared. Calling a plumber may be their only alternative. Next business day report to Superintendent so scheduling the installation of a clean-out at city right of way can be done.
 - 5.2.5 Eliminate: Main line stoppage; call additional personnel if needed. Use the flush truck or vactor which ever is available and most efficient. Look for a clear manhole to the down stream side of the stoppage to set up flusher. If in the road way it may be necessary to set out work signs, or have additional personnel to assist with traffic. Be sure to use all PPE's needed for the job, (safety vest, gloves ,glasses, etc.). It is always desirable to clear stoppage from the down stream side, run flusher at maximum pressure and speed to the stoppage. Once you have broken through the stoppage let out as much hose as possible or until you reach upstream manhole. When the hose is out as far as it can go retrieve the hose slowly under full pressure. Adjusting the reel speed knob will allow slower retrieval under full pressure. If possible determine what caused the stoppage. Look for signs of grease, roots, or whatever may have caused the stoppage.
 - 5.2.6 Eliminate: Service line stoppage use the small hose on the back of the flush

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truck or the vactor, due to the smaller size pipe these typically work best. However at times it may become necessary to use an electric snake to clear stoppage, usually in the case of root and hard stoppages. Clean-outs at the city R.O.W. will typically sweep toward the main sewer line, in some cases if there are two clean-outs together one will sweep toward the house and the other toward the main sewer line. Flush the one going toward the main sewer line. If both clean-outs are full and you can't determine which is sweeping toward the sewer main, flush from the one furthest from the main. Use all PPE's required as typically needed when flushing from a clean-out some sewage will blow back. Slowly feed the hose into clean-out use maximum pressure. With hard stoppages working the hose back and forth in the clean-out may be necessary. When the stoppage is clear and the water is flowing in the pipe, slow the flush truck engine down and disengage the clutch. Wait a moment to be sure it remains flowing. If so, pull hose out with no pressure. Once the hose is removed ask complainant to check if stoppage is clear. Running water from inside the house can help rinse any left over debris away.

- 5.2.7 Contain: To reduce the area of impact containment measures shall be taken. Every reasonable attempt shall be made to prevent the release from reaching the storm drainage system, or state waters. Use of straw bale barriers, earthen dams, or more conventional means of containment will be utilized. If these items are not readily available, personnel are encouraged to be innovative with means of containment.
- 5.2.8 Recover: Personnel will make reasonable attempt to recover materials released this includes water and solids. Recovery of material by use of vacuum truck or backhoe for large spills; rake and shovel for smaller releases. All collected material will be disposed of properly. Small amount may be bagged and placed into shop dumpster. Larger amounts collected in vacuum truck will be taken to HRSD facility. Collected solid materials will not be placed back into the sanitary sewer system. Collected water may be put back into sanitary sewer system at designated points.
- 5.2.9 Disinfect: After recovery of materials spill area will be disinfected. Pulverized lime will be used for disinfection and odor control in grassy or earthen areas. On hard surfaces, pavement, concrete, etc washing down the spill area may be necessary. Be sure that in doing so you are not putting sewage into storm drain system. With storm drain containment in place wash down and collect used water releasing water back into sanitary sewer system.
- 5.2.10 Assess: An initial field report will be filed with every overflow to track repetitive stoppages or overflows. Respondent will estimate the amount of spill or release reaching state waters. Pictures of impacted area are helpful and will assist in the reporting process. All initial field reports will be turned over to superintendent as soon as possible. If respondent believes any sewage reached or had the potential to reach state water, Superintendent should be contacted immediately for further instruction.
- 5.2.11 Reporting: Respondent will complete the initial field report. System release tracking reports will be completed by superintendent for each field report to track reoccurrences. Following the regional collection system release reporting criteria the superintendent will determine if filing a report using the SSOR's system to the Department of Environmental Quality is necessary.

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6.1 Collection System Release Reporting Criteria